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AUTHOR Nurss, Joanne R.
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ABSTRACT

Prereading assessment was first used to predict school readiness and was an assessment of the child's visual and oral vocabulary skills. By the 1970s, readiness assessment had changed from assessment of a child's developmental probability for success or failure in reading to an assessment of the child's skill development in relation to the reading instructional environment. Most current readiness tests reflect this newer concept emphasizing skills related to decoding and to comprehension. Recent criterion-referenced tests reflect the idea of relating assessment to instruction. This has brought about greater emphasis on subscores rather than on total scores. In the future, more research is needed to discover the relation of understanding concepts of "reading," "word," and "letter" to learning to read. An important implication of readiness assessment research is that teachers should choose the most appropriate prereading test for their particular situations and then plan instructional tasks to follow the information gained from the tests. (TJ)

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RESEARCH ON THE ASSESSMENT OF PREREADING SKILLS--AN AMERICAN PERSPECTIVE

Joanne R. Nurss
Professor of Early Childhood Education
Georgia State University
Atlanta, Georgia[1]

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This paper traces the history of readiness testing in America showing its close relationship to intelligence testing. It describes current readiness tests, the areas covered (visual and auditory skills, comprehension of oral language, and observational data on language skills and reading interest), and score information provided. It also discusses future trends from research such as the closer link of instruction and assessment and the assessment of a child's concepts of language. Finally, implications for classroom teachers are given. Central to the paper is the idea of using prereading skills assessment data to answer the questions readiness for what? taught how? with which materials? by whom?

[1]Mailing address through August 31, 1978:

Dr. Joanne R. Nurss
William Goodenough House
Mecklenburgh Square
London WCIN 2AN
England.

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Historical Perspective

The assessment of prereading skills or reading readiness in America began in the late 1920's as an out-growth of the measurement movement. In the early 1930's Gertrude Hildreth published the first edition of the Metropolitan Readiness Tests. Other early readiness tests included the Lee-Clark Reading Readiness Test and the Gates Reading Readiness Test. These tests were primarily an assessment of the child's visual and oral vocabulary skills. They were group-administered, paper-and-pencil tests and followed the best measurement principles developed at that time. They were seen as measures of cognitive functioning or mental abilities whose purpose was to predict school readiness. In her book, Readiness for School Beginners, Hildreth (1950) gives the purpose of such measures by saying, "Readiness tests are useful to teachers in helping to describe and compare the traits of individual pupils, and to school administrators in indicating the range of ability and knowledge among all the school entrants in a school or within the school system" (p. 64). Readiness tests were to "discriminate among the ready and less ready and to screen out those most certain to fail" (Hildreth, p. 64). This screening out or prediction of failure was one of the major functions of readiness tests. Because intelligence tests also showed the child's potential for school learning (that is, predicted success or failure), they were classified as readiness measures (Hildreth, 1958). This linking of readiness and intelligence was strengthened by the research of Morphett and Washburne (1931) who found that a mental age of 6.5 years was necessary for learning to read. Their concept of readiness and readiness assessment was prevalent for the several decades among American educators in spite of a group

of research studies completed by gates (1936-37) which led him to suggest that there might not be a necessary mental age for learning to read. In fact, Gates suggested that readiness must be assessed in relation to the methods and materials that will be used for instruction. This idea was largely ignored for the next 30-35 years.

In the period of the 1940's through the 1960's the major purpose of readiness tests was to use the total score for prediction of success or failure and to please the children into groups for readiness instruction. Typically 6 to 8 weeks of readiness instruction was provided in which the children often completed one or more readiness workbooks. The purpose of this readiness period was social and physical adjustment to school; visual and auditory discrimination training; development of language facility and background experiences; learning to recognize colors, read pictures, and demonstrate left-to-right orientation; and gaining motivation to learn to read (Tinker and McCullough, 1962, pp. 102-114). Readiness instruction was seen as involving a number of factors, but was not directly related to the specific instructional method that would be used to teach reading nor was it directly related to the readiness test results.

In the early 1960's Durkin (1967) completed two research studies which indicated that some children were entering first grade already reading, a fact not identified by the readiness tests. As a result of this research, she called for a rethinking of the concept of readiness away from that of product resulting from maturation toward that of a process evolving as children interact with their environments. Readiness as related to the instructional materials to be used in beginning reading is becoming a more common theme in the research of the 1970's. MacGinitie (1969) takes us back to Gates' earlier notions (1936-37) saying that the relevant question is not "Is the child ready to read?", but rather "readiness for what? how?" Ausubel (1959)

had earlier defined readiness in this same vein stating that readiness is "the adequacy of existing capacity in relation to the demands of a given learning task" (p. 247). Wanat (1976) suggests that readiness tests ought to be concerned with modifying the learning environment, not just the learner (p. 122). The concept of readiness or prereading skills assessment has changed from assessment of the child's developmental probability for success or failure in reading to an assessment of the child's skill development in relation to the reading instructional environment.

Current Status

Most current readiness tests reflect these newer concepts at least to some degree. The emphasis is on skills related to beginning reading, usually in the areas of decoding and comprehension. The decoding skills measured fall into two groups--visual and auditory skills. Research by Barrett (1965) indicates that visual discrimination of letters and words, visual memory, and letter recognition are all related to success in beginning reading. Goins (1958) adds figure-ground perception and visual closure to that list. Hall (1976) notes that early writing activities (usually assessed in a prereading skills test by a measure of visual-motor coordination) are related to beginning reading success also. The current prereading skills measures all include subtests in at least some of these areas. McNinch and Richmond (1972) found that auditory discrimination of sounds, auditory memory, auditory blending, and auditory-visual integration all were significant factors in accounting for end-of-first-grade reading achievement. Current tests usually include some auditory subtests, with auditory-visual integration being measured by a test of sound-letter correspondences. Comprehension skills include measures of oral language (vocabulary and concepts), listening and reasoning, and language structure. Smith (1975) and Gibson and Levin (1975) emphasize that the successful reader must predict or extract meaning from the

printed page. Oral language, based directly upon the child's experiences, is the best indicator of the child's success in so doing. Because oral vocabulary is so culturally linked, several current tests are omitting this measure from the prereading skills battery.

Skills thought to be important to beginning reading success, but not easily measured in a group, paper-and-pencil test, are usually included in some kind of observation checklist. Clymer and Barrett (1968) include oral language, social skills, emotional development, attitude toward and interest in learning to read, and work habits in their rating scale.

Recently a number of criterion-referenced tests have been published. These relate the child's performance to an absolute standard or criterion rather than to a group of other children (norm group). These measures have the advantage of being able to be directly linked to a specific curriculum of a school system or state or to specific materials available from a particular publisher. They seem to be a logical choice for a prereading skills test based on the current idea of relating assessment to instruction. Unfortunately, however, very little attention has been given to the reliability or validity of such measures, especially those designed to accompany a series of basal readers. If a test is not reliable, the score is, of course, meaningless. The publishers of such tests need to establish the reliabilities of their tests, include them in the manuals, and work to improve them if they are low.

Recent Findings

Some recent research findings are providing new ideas for inclusion in current and future readiness tests. Until recently almost every study completed indicated that the single best predictor of end-of-first-grade reading achievement was knowledge of letter names (Muehl and Nello, 1976). A recent study by Mitchell (1974), completed in connection with the revision of the

Metropolitan Readiness Tests, shows that entering first grade pupils have already mastered the names of the letters of the alphabet. If a letter recognition test is too easy for entering first graders, it will no longer predict end-of-first-grade reading achievement. Readiness tests designed to be given at the end of kindergarten or the beginning of first grade will no longer include a letter recognition test. This does not mean that all children beginning first grade will know all the letters of the alphabet. The teacher will still want to do a screening of letter knowledge with each child in the class.

Earlier versions of readiness tests used non-language symbols to assess auditory and visual discrimination. Sounds from the environment, pictures, geometric symbols, shapes, and designs all were used. Recent research indicates that assessment of skills related to reading is accomplished better by the use of actual language symbols; that is, letter sounds (phonemes), letters (graphemes), and letter-like artificial symbols (Barrett, 1965). If one were interested in assessing the child's visual discrimination skills with no possibility of learning from the environment interfering, it would be best to use artificial letter symbols; otherwise a prereading test of visual discrimination should use letters and numerals.

The trend toward making prereading skills tests more related to instruction has led to a de-emphasis on the total score (except for certain research purposes) and the inclusion of part scores in most prereading tests. In order for the part or subtest scores to be used, two criteria must be met. First, the parts of subtests, whichever are to be used, must be reliable enough to be used alone. Frequently these are short tests and, therefore, may not have high reliability. Secondly, the intercorrelations between the subtests or areas must be low enough to indicate that they are measuring different skills, at least in part. Schueneman (1975) did a factor analysis of the Metropolitan Readiness Tests and concluded that the data supported providing area scores on

on those tests.

Research in the 1960's made test authors aware of the effect of cultural and environmental differences on a child's test performance. Current tests are taking steps to reduce test bias against children from any particular socio-economic level, cultural or ethnic group, sex, geographical region, language background, or educational background (Nurss, 1976). In addition to modifying the tests themselves, many prereading skills measures now include a test-taking skills or practice exercise. The children are given instruction in the vocabulary necessary to succeed in the test; for example, "row," "column," "page," "same," "different," and so on. They are also introduced to the item formats used in the test, given practice in the marking system used, and allowed to work in small groups under test-like conditions. Obviously this type of instruction and practice means that children who have never been to school before and who have had little exposure to pencils and books are given a fairer chance to succeed on the test than if they had been tested "cold."

Another trend is toward the reduction of the verbal memory load in readiness tests. Jones (1970) found the memory load on tests of listening comprehension and following oral directions to be particularly high. Recent tests have minimized this problem by having oral directions or long comprehension items repeated by the examiner.

Future Directions for Prereading Measures

The past few years have seen a growing body of research on the child's understanding of language concepts and of the reading process itself. Similar studies have been completed in the United States, Canada, and England. In one study children were asked to segment oral and written contexts into words. Kindergarteners were unable to do so by conventional word boundaries (Holden

and MacGinitie, 1972). Other research indicates that preschool children do not understand the meaning of the concepts "reading," "word," or "letter" (Oliver , 1975; Downing, Ollila, and Oliver, 1975). Further research is needed to understand the relationship of these concepts to learning to read. It is likely that a test of langaage concepts might contribute to a test of prereading skills.

Future prereading skills measures are likely also to include an assessment of the child's skills in word recognition or actual reading. This could be accomplished either by a traditional subtest of these skills or by an instructional/testing task in which the children are taught a few words and a short time later tested on their recognition and understanding of the words in context. This kind of subtest could help identify children who may already know how to read and would give the teacher valuable information about the child's learning patterns and styles.

Implications for Classroom Teachers

The implications of the prereading assessment research discussed in this paper extend quite broadly to classroom teachers. One of the major concerns of teachers needs to be in the selection of a prereading test to use in their classrooms. If the school system selection team does not include teachers, a valuable source of input is lost and the danger of misinterpretation and inefficient use of test results is increased. Teachers selecting the readiness test must look for the test's reliability and vaildity. They must decide if they are seeking a norm-referenced or a criterion-referenced measure. They must determine if a practice test is included and if the scores are relatively free from bias. Finally they must assess the possible relationship of the instrument to their reading/langauge arts curriculum. For example, do the skill scores provide information with which the teacher can modify a given child's beginning reading curriculum?

Another implication for the classroom teacher is in planning instructionally-related assessment tasks to follow-up the information gained from the prereading skills test. For example, if a child scored low on a test of sound-letter correspondences, the teacher might try one or two games with the child in which s/he had an opportunity to observe if the child can discriminate between sounds and if s/he can recognize and name letters (both prerequisite skills to learning sound-letter correspondences). If not, the child's instruction would begin in these areas. If the child had no difficulty with these tasks, instruction in sound-letter correspondences would begin.

To assist the classroom teacher as much as possible, future readiness tests must bring about a closer relationship between assessment and instruction. As Durkin (1967) has pointed out, readiness is a process that develops within the child's environment. The purpose of readiness assessment is not to obtain a score with which the child can be labelled and with which the child's first grade achievement can be perfectly predicted. Rather the purpose of readiness assessment is to provide the teacher with specific instructional data about each child's skill level so that the prediction of the test may be ruined! The questions the teacher should be asking are readiness for what? taught how? with which materials? by whom?

References

Ausubel, D.P. Viewpoint from related disciplines: human growth and development. Teachers College Record, 1959, 60, 245-254.

Barrett, T.C. The relationship between measures of prereading visual discrimination and first grade reading achievement: a review of the literature. Reading Research Quarterly, 1965, 1, 51-76.

Clymer, T. & Barrett, T.C. Clymer-Barrett Prereading Battery. Lexington, Mass.: Personal Press, 1968.

Downing, J., Ollila, L., & Oliver, P. Cultural differences in children's concepts of reading and writing. British Journal of Educational Psychology, 1975, 45, 312-316.

Durkin, D. When should children begin to read. In H.M. Robinson (Ed.), Innovation and change in reading instruction. Yearbook for the National Society for the Study of Education, 1967, 67, Part II, 30-71.

Gates, A.I. Gates Reading Readiness Test. New York: Bureau of Publications, Teachers College, Columbia University.

Gates, A.I. Necessary mental age for beginning reading. Elementary School Journal, 1936-37, 37, 497-508.

Gibson, E.J. & Levin, H. The psychology of reading. Cambridge, Mass.: Massachusetts Institute of Technology Press, 1975.

Goins, J.T. Visual perceptual abilities and early reading progress. University of Chicago Supplemental Educational Monographs, 1958, No. 87.

Hall, M.A. Prereading instruction: teach for the task. Reading Teacher, 1976, 30, 7-9.

Hildreth, G.H. Metropolitan Readiness Tests. New York: World Book Co.

Hildreth, G.H. Readiness for school beginners. New York: World Book Co., 1950.

Holden, M.H. & MacGinitie, W.H. Children's conceptions of word boundaries in speech and print. Journal of Educational Pschology, 1972, 63, 551-557.

Jones, M.H. The unintentional memory load in tests for young children. (Center for the Study of Evaluation, Report No. 57). Los Angeles: University of California at Los Angeles, 1970.

Lee, J.M. & Clark, W.W. Lee-Clark Reading Readiness Test. Los Angeles: California Test Bureau.

MacGinitie, W.H. Evaluating readiness for learning to read: a critical review of evaluation and research. Reading Research Quarterly, 1969, 4, 396-410.

McNinch, G. & Richmond, M. Auditory perceptual tasks as predictors of first grade reading success. Perceptual and Motor Skills, 1972, 35, 7-13.

Mitchell, B.C. Changes over an eight- and nine-year period in the readiness level of entering first-grade pupils. Paper presented at the meeting of the National Council on Measurement in Education, Chicago, April, 1974.

Morphett, M. & Washburne, C. When should children begin to read? Elementary School Journal, 1931, 31, 496-503.

Muehl, S. & Nello, M.C. Early first-grade skills related to subsequent reading performance: a seven-year follow-up. Journal of Reading Behavior, 1976, 8, 67-81.

Nurss, J.R. An attempt to reduce test bias in readiness tests. In R.C. Granger & J.C. Young (Eds.), Demythologizing the inner-city child. Washington, D.C.: National Association for the Education of Young Children, 1976, pp. 33-36.

Oliver, M.E. The development of language concepts of pre-primary Indian children. Language Arts, 1975, 52, 865-869.

Scheuneman, J. Maximum likelihood factor analysis. Unpublished report, Harcourt, Brace, Jovanovich, Inc., 1975.

Smith, F. Comprehension and learning: a conceptual framework for teachers. New York: Holt, Rinehart, Winston, 1975.

Tinker, M. & McCullough, C. Teaching elementary reading. (2nd ed.) New York: Appleton-Century-Crofts, Inc., 1962.

Wanat, S.F. Reading readiness. Visible Language, 1976, 10, 101-127.